



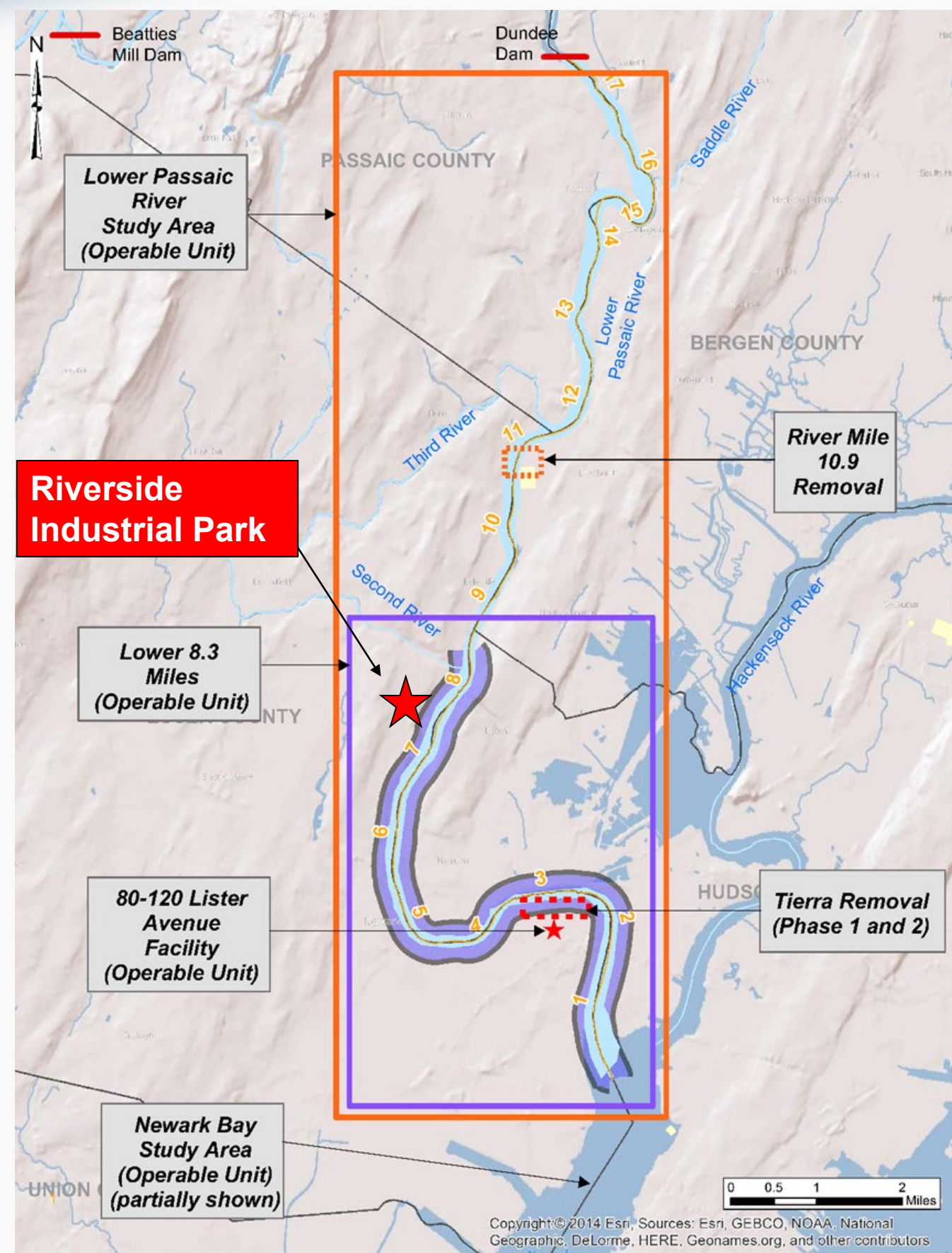
Riverside Industrial Park Superfund Site

Remedial Investigation

March 5, 2020

Location and History

- Riverside Industrial Park
- Newark, Essex County
- 7.6-acre site
- Bordered by Passaic River (RM 7.1 to 7.3) and Riverside Ave/McCarter Highway
- Site reclaimed from river
- Industrial area since early 1900's





Riverside History and Superfund Listing

- ~1903 - Patton Paint Company constructed their plant
- 1920 - Patton merged into Pittsburgh Plate Glass Company (PPG)
- 1971 - PPG ceased all operations
- 1971 to current
 - Site was subdivided into 15 Lots
 - Used for a wide variety of industrial purposes from cosmetics to packaging; some lots are currently inactive/abandoned
- 2009 - EPA found discharge to pipe on site
- 2009-2014 - EPA removal actions
 - Plugged discharge pipes and removed drums/tanks
- 2013 - Added to Superfund List

Site Map

DRAWING NUMBER
11602B2



BLOCK 614 LOT #	BUILDING #	OWNER
1	2,3	HATZLUCHA ON RIVERSIDE, LLC.
57	10	PLAGRO REALTY, INC.
58	15, 15A	CITY OF NEWARK
59	14	ALBERT SHARPHOUSE
60	1	SHEFAH IN NEWARK, LLC.
61	6	CITY OF NEWARK
62	9	CECLOR ASSOC., LLC.
63	7	CITY OF NEWARK
64	12	CITY OF NEWARK
65	NA	INDUSTRIAL DEV. CORP.
66	17	CHEMICAL COMPOUNDS, INC
67	NA	CECLOR ASSOC., LLC.
68	NA	CITY OF NEWARK
69	13, 19	SHARPMORE HOLDING INC.
70	16	ESTATE OF CAROLE GRAIFMAN

LEGEND

- FORMER BUILDING FOOTPRINT
- APPROXIMATE SITE BOUNDARY
- APPROXIMATE LOT BOUNDARY
- 61 LOT NUMBER
- #17 BUILDING NUMBER
- VACANT BUILDING

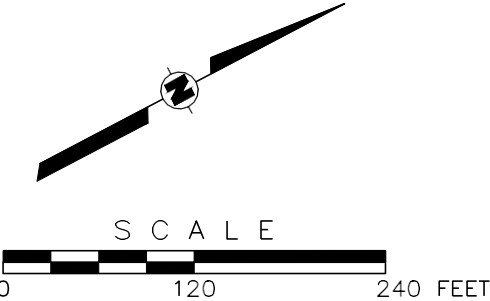


FIGURE 2-1
PARCEL AND BUILDING LOCATION MAP
RIVERSIDE INDUSTRIAL PARK
SUPERFUND SITE
NEWARK, NEW JERSEY

REVISION	DATE	DESCRIPTION
#1	6/28/16	Add Building Numbers
#2	4/6/17	Add Former Building Footprints
#3	9/26/18	Update

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COMMITMENT & INTEGRITY DRIVE RESULTS

DRAWING NUMBER 11602B2
DRAWN BY: T.N. Fitzroy CHECKED BY: B.T. Zewe APPROVED BY: K.J. Bird
DATE: 3/24/14 DATE: 07/08/14 DATE: 07/08/14

PLOT SCALE: 1=1





Lot 67, empty lot



Lot 69 (Building 19)
vacant building



Facing Passaic River: Lot 63 (Building 7), vacant building



Facing Passaic River: Lot 61 (Building 6), vacant building



Riverside Remedial Investigation Timeline

- 2014 - EPA signed agreement with PPG to study the site
- 2017 - EPA approved the Remedial Investigation / Feasibility Study (RI/FS) Work Plan
- 2017 to 2019 - Field investigations and site characterization
 - Evaluations of abandoned buildings, containers/tanks, sewers and subsurface piping, river wall pipes
 - Soil borings and soil sampling
 - Groundwater sampling from monitoring wells
 - Vapor intrusion screening and indoor air sampling
- February 2020 - Conditional approval
 - Baseline Human Health Risk Assessment (BHHRA),
 - Screening Level Ecological Risk Assessment (SLERA), and
 - Remedial Investigation (RI).



Geological Investigation

- **Historic fill**
 - Predominantly the top layer of the site
 - Used to raise the elevation and reclaim land from the river
 - Consists of soil with variable amounts of debris
 - Up to 15 feet of fill
 - The lower portions of the fill are saturated by groundwater
 - Fill material appears to have been impacted by historical and/or current operations
- Soil was found to be impacted by volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals



Groundwater Investigation

- Two groundwater units were investigated:
 - Shallow wells and deep wells
 - Both units flow primarily towards the Passaic River
 - Tidal influences were observed in both units
- Groundwater quality varied based on location
 - Impacted by historic fill, underground storage tanks (USTs), spill/releases from past or current operators
 - Southern portion is contaminated by VOCs
 - Central portion contaminated by fuel-related constituents
 - Northern portion is contaminated with fuel-related constituents and VOCs



Potential Sources Identified

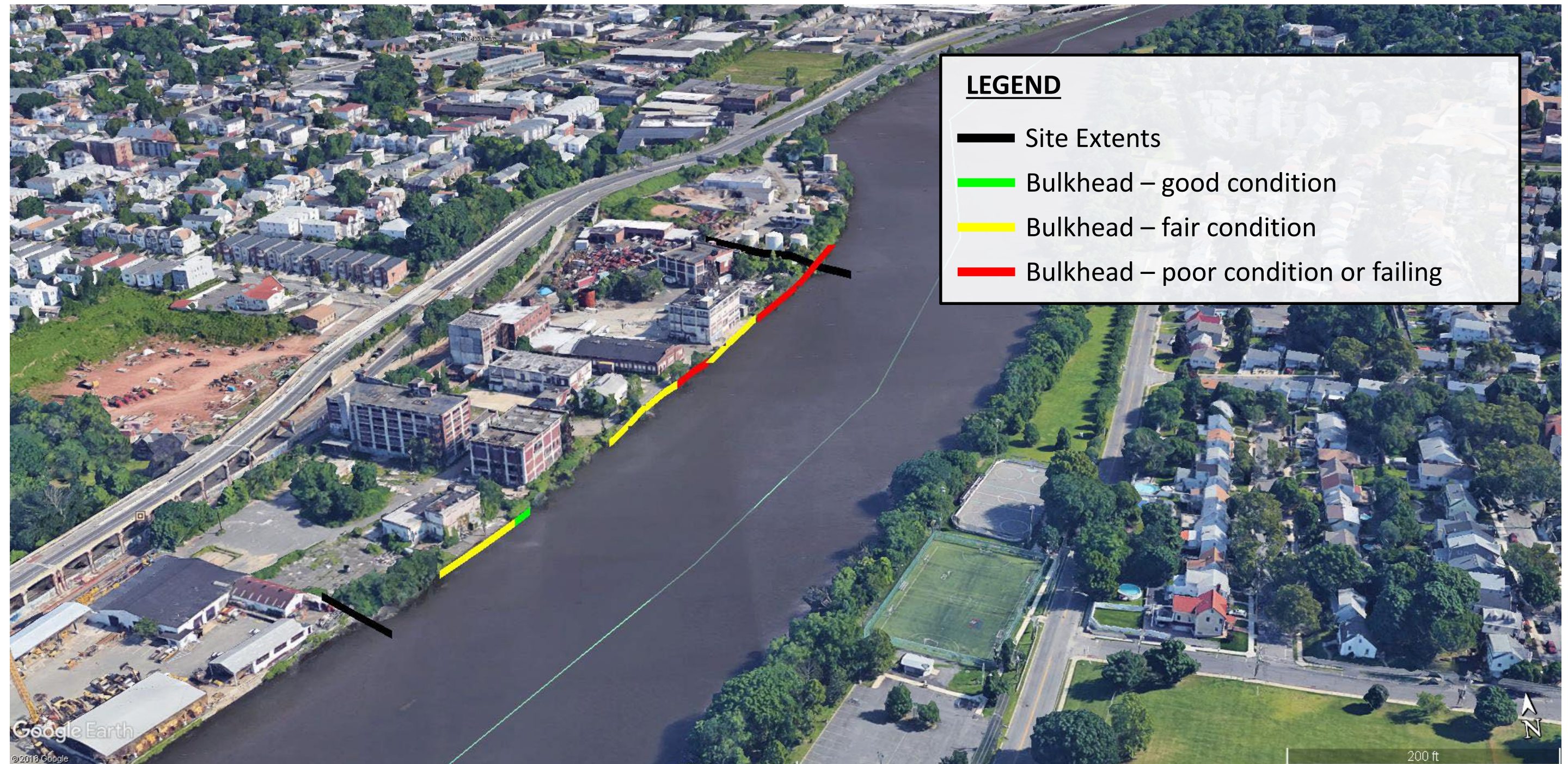
- **Containerized waste**
 - Drums/containers in vacant buildings (Lots 63, 64, and 66)
 - An inactive sewer manhole has elevated chlorinated organic concentrations
 - Basement of a former pump building (Lot 58) contains petroleum waste
- **Current or ongoing sources of contamination**
 - Exposure to soils at select lots primarily due to lead
 - River wall sewer pipe draining contaminated water (Lot 57)
 - Abandoned USTs and petroleum in soils
 - Bulkhead deterioration and soil erosion
 - Shares boundary with the river. Concern for contaminated soils moving to and from the site during future high water events



Impacts between the site and the River

- Portions of the bulkhead have deteriorated
- There may be impacts to and from the river
- The portion of the river adjacent to the site is part of Diamond Alkali OU2, the Lower 8.3 miles. This part of the river has a cleanup plan that is under design.





Source: GSH/Tetra Tech "Preliminary Bulkhead and Shoreline Assessment Report" Revision 2, May 2019



Baseline Human Health Risk Assessment

- Unacceptable risk
 - 10^{-4} to 10^{-6} or higher for cancer, or
 - above the Hazard Index (HI) of 1 for non-cancer
- EPA Region 2 screening level for lead in soil is 800 mg/kg for non-residential areas
- EPA Region 2 goal is no more than 5% of the exposed individuals having greater than 5 $\mu\text{g}/\text{dL}$ blood lead levels
- Evaluation of risks/hazards at each of the 15 individual Lots



Baseline Human Health Risk Assessment

- Potentially exposed populations (i.e., receptors) include:
 - Outdoor workers, indoor workers, utility workers, construction workers, trespassers (adult and adolescent), visitors (adult and child), off-site workers and residents (via wind transport), and potential future on-site residents
- Evaluated the site under three scenarios
 - Current use - some Lots are abandoned or not in use
 - Future use - assumes all Lots are used
 - Hypothetical future residential use - assumed to become residential land
 - This site is currently zoned as industrial and it is not expected to become residential in the future
 - Helps development of institutional controls (such as deed restrictions) at Lots that do not exhibit risk under the other scenarios



Baseline Human Health Risk Assessment

- **Current Use**
 - Unacceptable risk from exposure to lead in soil
- **Future Use**
 - Potential unacceptable future risk from lead, copper, and VOCs in soil and indoor air
- **Groundwater**
 - Potential unacceptable future cancer risk and noncancer hazards in both shallow and deep groundwater



Screening Level Ecological Risk Assessment

- SLERA provides a conservative estimate of the maximum potential ecological risks
- Goals of the SLERA
 - Determine that there are no significant ecological risks
 - Determine if there is a need for additional evaluation of potential risks
- Only focuses on the potential for terrestrial exposure from on-site surface soil
 - No direct pathway to groundwater
- Only samples within or adjacent to areas identified as pervious and/or within potential ecological habitat were included



Screening Level Ecological Risk Assessment

- This is very low-quality ecological habitat
 - 100 years of industrial use and will remain industrial
 - 70% paved over
 - No sensitive species
- Unacceptable risk in surface soil
 - All remedial alternatives will address this contamination
 - No further screening is required



Summary

- **Several potential sources were identified**
 - Containers, manhole, UST, and bulkhead
- **Unacceptable risk found at the site**
 - Exposure to lead in soil is driving the unacceptable human health risk at the majority of the site
 - Exposure to copper in soil
 - Vapor intrusion
- **Unacceptable ecological risks were also found at the site**



Redevelopment

- City of Newark executed redevelopment agreement in January 2018
- EPA agreed to an aggressive 2-year schedule to coincide with redeveloper's 2-year due diligence period in March 2018
- EPA continues to be involved in discussions with the redeveloper and the City of Newark



Timeline to ROD

- **February 2020 - Baseline Human Health Risk Assessment, Screening Level Ecological Risk Assessment, and the Remedial Investigation Report were conditionally approved and the Feasibility Study began**
- **June 2020 - Approval of the Feasibility Study expected**
- **June 2020 - EPA to release Proposed Plan for public comment**
- **September 2020 - Record of Decision (ROD) expected to be signed**



Questions?

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